

D/F SYSTEM - (OSS)

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CONSIDERATIONS IN REGARD TO POSSIBLE OF OPERATIONS IN THE FAR EAST AREA
THE PURPOSE AND AREA OF OPERATION **SECRET**

A direction finding operation which would be effective against Japanese clandestine and tactical radio stations in the Burma, China, India Theater; with possible extension at a later date to cover Thailand, Indo-China, the Philippines, and East Indies.

The Methods of Operation

1. Long range Adcock DFing for the location of clandestine and/or tactical stations that the Japanese may have within the Allied sphere of influence.

Such work will locate radio stations within a radius of from 20 to 50 miles, to be further identified and located by portable or mobile Loop-direction finding. Each of these long range fixed Adcock direction finding stations, of which there should be a minimum of 3, and more, if possible, will necessitate a small monitoring station for the preliminary identification of radio stations and the culling out of those who may be friendly or out of the sphere of activity concerned.

2. Both portable and mobile Loop-direction finding for the final location of an undercover station within the 50 mile radius indicated by cross bearings from Adcock stations.

Mobile DF trucks or animal-drawn vehicles will be used where roads or trails are available, or in mountainous terrain not permitting vehicular traffic, mule-borne portable equipment will have to suffice.

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3. The use of mobile and portable loop-direction finding apparatus in cities, villages or small areas where definite intelligence indicates that there is a clandestine station in a congested area, but the exact location cannot be determined.

This will require a rather complicated combing procedure along with periodic receivers and special locating devices. Such an arrangement would seem adequate in most instances; however, it is one of the most difficult types of location to handle because of idiosyncrasies of radio and the inability to normally identify a station as to whether it is one, twenty, or a thousand miles away.

Proposed Location of Adcock Stations

1. The geography of the area in question and the fact that the most likely points for triangulation are in Japanese hands will require that we accept second best locations for our fixed direction finding stations. The following probable points are suggested:

Kidney Island
 Darwin, Australia
 Colombo, Ceylon
 Calcutta, Bengal
 Lanchow, Kansu

Cooperation with Other Services

1. The Navy is operating and constantly enlarging a rather comprehensive direction finding activity in the Australia-Solomon Islands region, and the tying in with this organization would not only probably eliminate the construction of a station in Darwin and possibly ~~Kidney~~ **SECRET** but would also give us the benefit of their experience and knowledge of the area and reduce personnel requirements, which is an exceedingly important point.

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2. The British have, as far as we know, only one rather antiquated Adecek station in the vicinity of Calcutta, which may, if it does not limit the operation and control of our own DF organization, be helpful.

3. These operations must entail the closest collaboration and clarification of all operations among not only the Service Branches of the various Allied nations involved, but also among whatever **SECRET** are assigned to these areas from SI, SO, OO, and I-2.

Approximate Requirements and Costs

8 Adecek direction finders	\$ 14,000.00
12 Mobile units	30,000.00
50 Portable DFs	30,000.00
8 Monitoring stations equipped with power supply, receivers, and miscellaneous apparatus	33,000.00
12 DF net control transmitters and associated equipment	30,000.00
Miscellaneous apparatus, spare parts, tools	50,000.00
	<u>\$183,000.00</u>

The above figures do not include transportation and installation.

Personnel

8 Adecek stations and their associated monitoring stations and transmitting station	14	SECRET
9 Mobile units active	1	20 "
Supervisory and maintenance personnel	5	10 "

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(The figures shown are military personnel only and do not include a large number of native and civilian help, which can only be determined by conditions in each particular area. Notwithstanding, they include personnel which will be assigned by SI, SO, or I-2, in the coordination of the intelligence gained through the DF service.)

Summary

1. The activation of an overall direction finding plan for the Far Eastern area of Burma, China, and India, which might be expanded to include other Japanese occupied territories should not be effected until the entire plan, including its physical, financial and personnel requirements have been very carefully considered.
2. Even under the best conditions of the highest priorities and the closest of cooperation from all of the services, equipment and personnel could not be acquired and obtained in less than 3 to 4 months. Such apparatus is on the critical list and the source of personnel of the caliber to handle such an operation is extremely scarce. It would probably be necessary to specially train the officers and men from the ground up in this type of communication work. This requires time for recruitment and selection as well as training.
3. In considering such a direction finding plan for this theater, the topography, transportation, and climatic conditions must be heavily weighed in any deliberation. Mountain barriers will certainly cause erratic measurements, and as far as the actual direction finding is concerned, the lack of good roads in many cases will make it almost impossible to locate a clandestine station before it is moved or closed down. With the exception of certain metropolitan areas, it may require months to circumnavigate and cross-hatch an area with portable DF equipment. Trying to locate an

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enemy station in an area where the enemy lines and his activity are in a fluid status is a slow, laborious process. It may be that very little could be accomplished, in comparison to the efforts. Direction finding in itself is not always a precise art, but requires experience, a certain amount of luck, a great amount of patience, and an awful lot of time.

4. It is recommended that before any direction finding plan in this Far Eastern area is decided upon, a competent officer with the knowledge of the possibilities and ramifications of direction finding be sent to the area to consult with Colonel Kifler, the British, the Army Air Force, and Captain Miles, and the American Air Force Command, because all of these people have a personal knowledge built on actual experience in the area, its facilities, its politics, transportation and enemy activities therein.

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7/3/51

Donnell Fund

Memo for General Donovan.

From: Capt. Fred Silveira

Subject: D/F SYSTEM IN AFRICA

1. Accra D/F base should not be established.

Accra is far removed from the theater of war operations and from the theater of effective enemy air radio activity.

It is not likely that enemy radio stations in North Africa of sufficient strength to be intercepted, or destroyed, by Accra. Nor will high-powered collecting enemy transmitters be located in North or Central Africa north of Accra for the reason that such stations would be too conspicuous and the country too inaccessible to be fed supplies, and information for the unit.

Those radio transmitters most likely to exist are (a) low-powered, (b) located in areas recently occupied by the enemy and areas used for Allied invasion preparations.

Although it is true that from a technical standpoint Accra is geographically well situated to approach the scientific ultimate, i.e., 90° angles on D/F "lines" between Algiers-Dakar-Accra, at the same time points in Africa approaching that angle would be in areas where transmitters are not likely to exist.

2. Cairo D/F station should be established immediately.

This station, together with Dakar and Algiers (now existing), will provide adequate cover of that part of Africa now intended to be covered by Algiers-Dakar-Accra.

This station would be in good position to cover our military advance to the north all along the Mediterranean, again working in conjunction with Dakar and Algiers. Equipment and personnel therefor can easily be diverted by air from Accra to Cairo.

Serious consideration should be given to the establishment of a fourth station at Casablanca.

Memo for General Donovan

July 21, 1943

From: Capt. Silveira - Subject: Radio Direction

3. D/F station in Gambia

Plans should be laid immediately for the construction.

This would provide a base line (in line with Dakar) of North African coast. This radio is most likely to exist.

4. D/F should be established in the desert to attract enemy radio. I.e., North Africa. This should be the scene of all invasion to be made at any time to come.

5. Keep abreast of the all staff advance to the north.

6. Portable D/F units should be secured and placed in any case and the radio should be in the desired areas.

7. Co-ordination with British, U.S. and French forces.

To give CBS the benefit of their experience in the identification of enemy radio signals and to give the benefit of the CBS D/F system to the British and French forces which CBS has built.

References: Pouch Letter No. 10 (May 21, 1943) Station to
Boulogne
Pouch Letter No. 31 (July 13, 1943) " " "
Pouch Letter, June 28, 1943 " " " "

MEMORANDUM

MOST SECRET

To: Brigadier General William J. Donovan
 From: Captain John J. McDonough

August 2, 1945

You will recall that RUDYERD BOULTON and Captain MERO cabled you regarding the arrangements to be made for the coordination of the OSS D.F.'ing and monitoring operation with that of AFHQ and British RSS.

Today at a conference with Major BOUTWELL it became apparent that there could be no close working arrangement between RSS and the OSS D.F.'ing stations until RUDYERD BOULTON, or some other representative of OSS, has demonstrated to RSS, through Captain MAIDMENT in Washington, that the following conditions have been satisfied:

1. That written authorization has been granted to OSS by AFHQ for the operation of the three D.F.'ing and monitoring stations in DAKAR, ALGIERS, and CAIRO;
2. That the work of the three stations has been coordinated with the monitoring and D.F.'ing activities of the U.S. Army in the North African theatre;
3. That the plan for the operation of the three OSS D.F.'ing and monitoring stations has been cleared with the War Department and coordinated with the existing monitoring services of the F.C.C., the F.B.I., the Army, and the Navy;
4. That proper measures are instituted to provide the highest degree of security in connection with the operations of the stations at DAKAR, ALGIERS, and CAIRO.



204. 017 15, 1943

FROM : VICTOR

TO : CASABLANCA

(para)

FROM 154

TO : DONOVAN

AS THERE IS ABSOLUTELY NO DOUBT FOR OF ITEMS WHICH ARE AVAILABLE
NOW IN ABUNDANCE, ANSWERS TO THE FOLLOWING QUESTIONS ARE URGENTLY DEMAND
BY US :

1. WHO SHOULD BE GIVEN, IN AFPHQ, THE LOCATION OF ENEMY STATIONS.
 2. WHO SHOULD BE GIVEN IN AFPHQ, THE RAW UNBROKEN INTERCEPTS.
 3. DO YOU APPROVE, AND/OR DOES THEATER COMMANDER APPROVE OUR METHOD
IDENTIFICATIONS AND SEARCHES WITH " ROGER SAILSAFE " ?
 4. WHO, IN AFPHQ, GIVES US DIRECTION FOR WATCHING OF INTERCEPTS.
- #2. OUR 68 ADDRESSED TO YOU AT ALMERS REQUIRED AN ANSWER BEFORE JULY 31.
and " YOKE BOARD " CLEARANCE IN LONDON IS ALSO NECESSARY.

*Radio Security Service
British SIS AF system*

4400

PARAPHASE:

1952-53

Action: JJD
JCH
ES

Inform: WAd
WAE
WP
PLI

From: VICTOR
WASHINGTON

(No. 682)

From Boulton to 109.

About July 30, DF men and equipment will arrive in Jaber.

Our relations with the British there may be adversely affected if they are not informed. We urgently need clearance from you relative to the whole Africa DF system and its relation to the Theatre Command. Should we deliver results to the Theatre Command, both bearings and intercepts, and what should be the relation to British AMST Refer to our memo to you carried and our cable No. 528 July 1 to you. Captain Fred Silveira, CO of DF at Dakar is now in Algiers, and we suggest that you discuss with him.

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SECRET

June 16, 1945

To: Brig. Gen. William Donovan
 From: R. Boulton and Capt. Hero
 Subject: D/F System in Africa

1. Location of Stations

Algiers, Dakar and Accra

2. Status as of today

Algiers and Accra under construction. Dakar already finished. All the personnel procured and 80% of the personnel already overseas.

3. Purpose

(a) To locate by means of long range and short range D/F units the location of secret enemy transmitters known to be operating on the Continent of Africa.

(b) To copy the text of said enemy transmissions and refer such texts, as well as the data on their location, for appropriate action through OSS Algiers to the Theatre Commander at Algiers.

4. Interchange of Information with FCC (U.S.) and RSS (Great Britain)

(a) Such interchange is most desirable, particularly because the FCC and the RSS have had several years of experience in identifying enemy circuits as such. In other words, with their help we may eliminate circuits that may sound like enemy circuits but actually are known not to be such by the FCC and the RSS. We have made arrangements with the FCC for such

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information and some talks have taken place with the British.

5. Action suggested

(a) We do not think that the Theatre Commander's staff at Algiers is fully aware that this D/P system is capable of (particularly if it is closely linked with the RSS system) intercepting practically all circuits of enemy secret agents operating in Africa. Though the original request for D/P came from Col. Eddy, we feel that the equipment he asked for was just for intercepting local agents around North Africa.

Provided that arrangements are available at Algiers to break enciphered messages thus obtained it will be possible to be fully informed on the movements of axis agents in Africa as well as on the amount of information such agents are obtaining on our forces. In order to set up the proper liaison for this purpose between the Theatre Commander and OSS Algiers it would appear necessary to advise General Smith of the details of this arrangement so that proper liaison can be worked out at a time when the whole system goes into operation which will be about the 20th of July.

(b) From the conversation that we have had with Major Bourvier and Capt. Maidment (RSS) it appears clear that the cooperation between the British and OSS on this matter cannot be officially initiated except through established channels, that is to say, between the "Y" Board in Great Britain and GHQ Algiers. However, we do not think that the British should approach GHQ on this matter until such time as General Smith is fully advised of the implications of this project.

/s/ Lawrence W. Lowman /s/ Whitney H. Shepardson

SECRETDate 19 June 1968To: GENERAL INNOVAM

1. Attached for your consideration is a memorandum from Mr. Boulton and Captain Nere, together with a summary prepared by the Secretariat.

2. Will you kindly indicate whether the recommendations of Mr. Boulton and Captain Nere are summarized in paragraphs (b) and (c) of the Secretariat memorandum have your approval?

Ans for review J.P.R.
Office of the Secretariat

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OFFICE OF STRATEGIC SERVICES

INTEROFFICE MEMO

TO: General Donovan
FROM: Secretariat
SUBJECT: D/F System in Africa

DATE 18 June 1943

The attached memorandum from Mr. Boulton and
Captain Merritt^o

(a) Indicates that the OSS D/F stations under construction in North Africa, when completed on or about 20 July 1943, will be capable, if used in conjunction with FCC and British RSS systems, of intercepting practically all enemy secret agent transmissions in Africa. Arrangements for cooperation with FCC have been made and preliminary talks have taken place with British RSS.

(b) Proposes that General Smith be advised of these capabilities and be asked for the cooperation of AFHQ Algiers in setting up facilities for deciphering intercepts.

(c) Further proposes that after clearance with General Smith a request be initiated through proper channels (the "Y" Board in Great Britain and GHQ Algiers) for the cooperation of British RSS.

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D. C. L.

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Annex 13, 1948.

To: Brig. Gen. William Donovan
 From: R. Boulton and Capt. Mave
 Subject: D/F System in Africa

1. Location of Stations

Algiers, Dakar and Acera

2. Status as of today

Algiers and Acera under construction. Dakar already finished.
 All the personnel procured and 80% of the personnel already overseas.

3. Purpose

(a) To locate by means of long range and short range D/F units the location of secret enemy transmitters known to be operating on the Continent of Africa.

(b) To copy the text of said enemy transmissions and refer such texts, as well as the data on their location, for appropriate action through OSS Algiers to the Theatre Commander at Algiers.

4. Interchange of information with FCC (U.S.) and RSS (Great Britain).

(a) Such interchange is most desirable, particularly because the FCC and the RSS have had several years of experience in identifying enemy circuits as such. In other words, with their help we may eliminate circuits that may sound like enemy circuits but actually are known not to be such by the FCC and the RSS. We have made arrangements with the FCC for such information and some talks have taken place with the British.

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SECRET**8. Action suggested**

(a) We do not think that the Theatre Commander's staff at Algiers is fully aware that this D/Y system is capable of (particularly if it is closely linked with the RSS system) intercepting practically all circuits of enemy secret agents operating in Africa. Though the original request for D/Y came from Col. Eddy, we feel that the equipment he asked for was just for intercepting local agents around North Africa.

Provided that arrangements are available at Algiers to break enciphered messages thus obtained it will be possible to be fully informed on the movements of axis agents in Africa as well as on the amount of information such agents are obtaining on our forces. In order to set up the proper liaison for this purpose between the Theatre Commander and OSS Algiers it would appear necessary to advise General Smith of the details of this arrangement so that proper liaison can be worked out at a time when the whole system goes into operation which will be about the 20th of July.

(b) From the conversation that we have had with Major Bourvaris and Capt. Maumont (RSS) it appears clear that the cooperation between the British and OSS on this matter cannot be officially initiated except through established channels, that is to say, between the "Y" Board in Great Britain and GHQ Algiers. However, we do not think that the British should approach GHQ on this matter until such time as General Smith is fully advised of the implications of this project.


 Lawrence W. Lowman


 Whitney H. Shepardson

SECRET

To: Brig. Gen. William ...
 From: A. Boulton and Capt. ...
 Subject: W/T System in Africa

1. Location of Stations

Algiers, Dakar and Accra

2. Status as of today

Algiers and Accra under construction. Accra already finished. All the personnel proposed to be sent to the personnel already overseas.

3. Purpose

(a) To locate by means of long range and short range units the location of secret enemy transmitters known to be operating on the Continent of Africa.

(b) To copy the text of said enemy transmissions and refer such texts, as well as the data on their location, for appropriate action through USS Algiers to the Theatre Commander at Algiers.

4. Interchange of information with FCC (U.S.) and Great Britain.

(a) Such interchange is most desirable, particularly because the FCC and the RSS have had several years of experience in identifying enemy circuits as such. In other words, with their help we may eliminate circuits that may sound like enemy circuits but actually are known not to be such by the FCC and the RSS. We have made arrangements with the FCC for such

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information and some talks have taken place with the

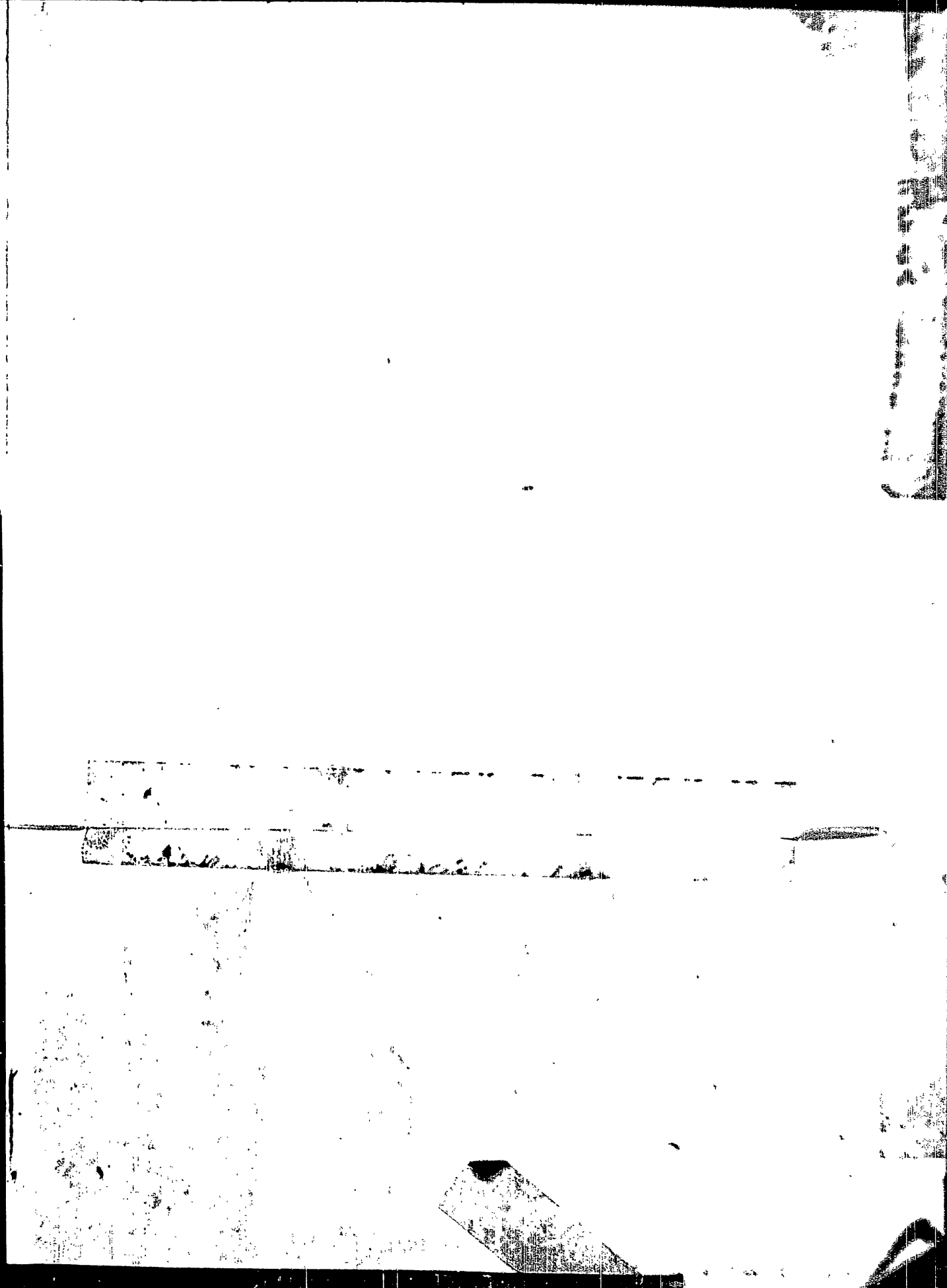
5. Action suggested

(a) We do not think that the Theatre Commander's staff at Algiers is fully aware that this ρ/τ system is capable of (particularly if it is closely linked with the ρ/τ system) intercepting practically all circuits of enemy secret agents operating in Africa. Though the original request for ρ/τ came from Col. Eddy, we feel that the equipment he asked for was just for intercepting local agents around North Africa.

Provided that arrangements are available at Algiers to break enciphered messages thus obtained it will be possible to be fully informed on the movements of axis agents in Africa as well as on the amount of information such agents are obtaining on our forces. In order to set up the proper liaison for this purpose between the Theatre Commander and OSS Algiers it would appear necessary to advise General Smith of the details of this arrangement so that proper liaison can be worked out at a time when the whole system goes into operation which will be about the 20th of July.

(b) From the conversation that we have had with Major Bouverie and Capt. Maidment (RCS) it appears clear that the cooperation between the British and OSS on this matter cannot be officially initiated except through established channels, that is to say, between the "Y" Board in Great Britain and HQ Algiers. However, we do not think that the British should approach HQ on this matter until such time as General Smith is fully advised of the implications of this project.

/s/ Lawrence W. Lowman /s/ Whitney H. Shepardson



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